

Lunar Telecommunications

This paper reviews the telecommunications needs of future lunar orbiters and rovers and considers ways in which these needs can be met with ground-based tracking resources,

The paper first characterizes key tracking requirements of Lunar Prospector, Lunar-A, and a proposed Lunar Rover mission. It then presents ground tracking options that could be used to satisfy these requirements. It compares these options based on various performance measures and on regulatory considerations. It shows how multiple lunar missions can be tracked simultaneously with a single ground aperture.

Finally, the paper proposes a Deep Space Network virtual subnetwork that could be used by many lunar missions,